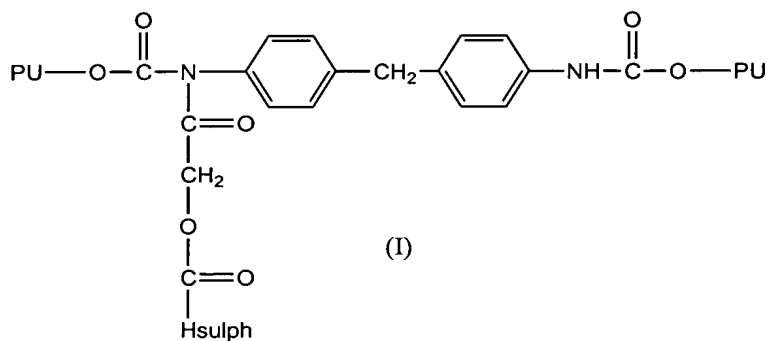


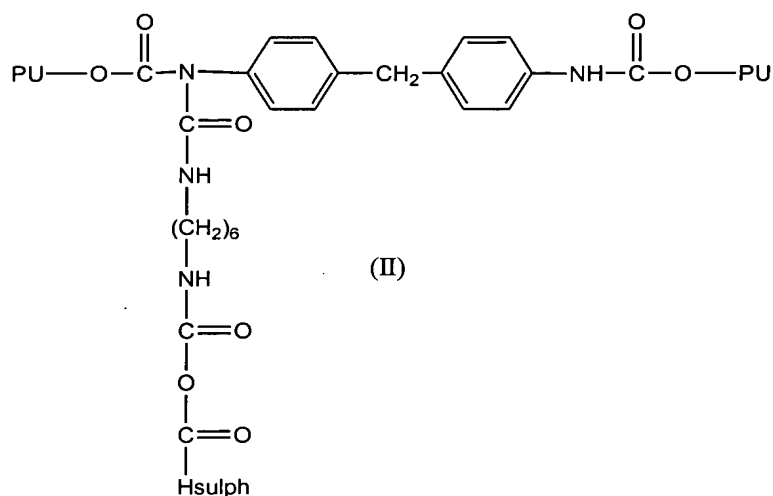
+

IN THE CLAIMS

1. (previously presented): A compound which consists of polyurethane bound covalently to a sulphated hyaluronic acid derivative, wherein the said sulphated hyaluronic acid derivative is an O-sulphated hyaluronic acid derivative.
2. (previously presented): The compound according to claim 1, wherein the said polyurethane is formed starting from 4,4'-methylenebis (phenyl isocyanate).
3. (canceled)
4. (canceled)
5. (previously presented): The compound according to claim 1, wherein the hyaluronic acid derivative used to prepare the said sulphated hyaluronic acid derivatives are selected from the group consisting of:
  - the partial esters of hyaluronic acid containing at least one free carboxylic function and the remaining carboxylic function esterified with an aliphatic, aromatic, arylaliphatic, cycloaliphatic or heterocyclic alcohol,
  - the partial crosslinked esters containing at least one free carboxylic function and the remaining carboxylic functions are esterified with the alcoholic function of the same hyaluronic acid molecule or of a different hyaluronic acid molecule,
  - the partial crosslinked esters containing at least one free carboxylic function reacted with an aliphatic, aromatic, arylaliphatic or heterocyclic polyalcohol, and wherein crosslinking is thereafter generated by means of spacer chains.
6. (previously presented): The compound according to claim 1 of formula (I)

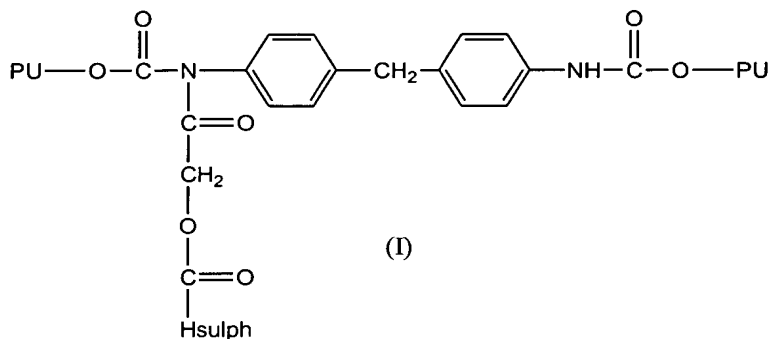


or formula (II)



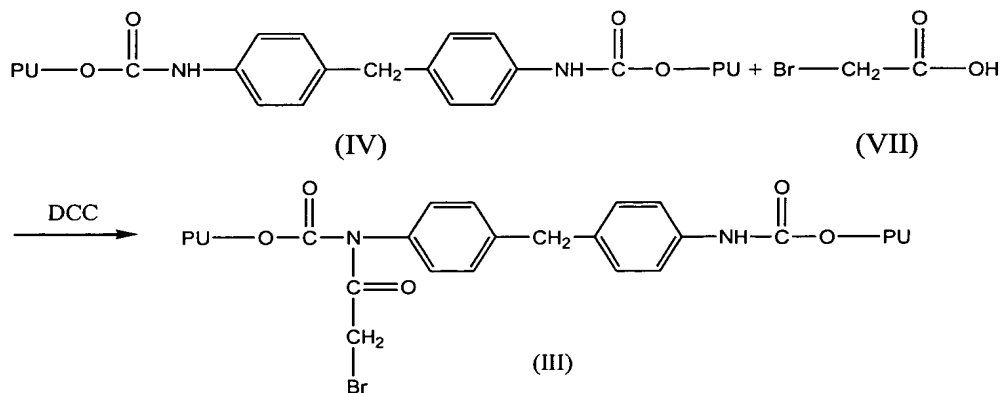
wherein PU is a residue of the polyurethane chain, Hsulph is a residue of a sulphated hyaluronic acid derivative containing at least one free carboxylic function.

7. (currently amended): A process for preparing the polyurethane of formula (I)

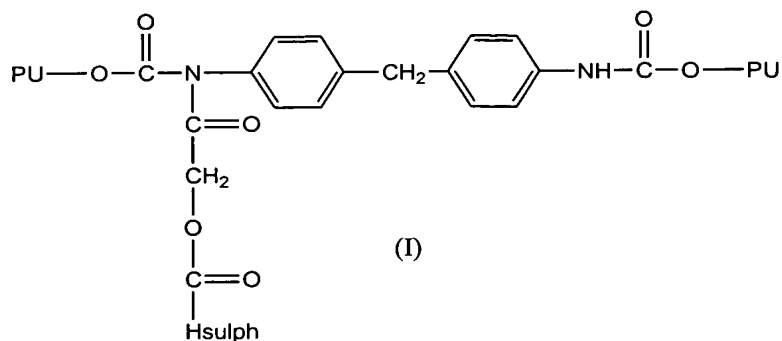


wherein PU ~~and Hsulph are~~ is a residue of the polyurethane chain and Hsulph is a residue of a sulphated hyaluronic acid derivative containing at least one free carboxylic function as defined in claim 6, comprising the following steps:

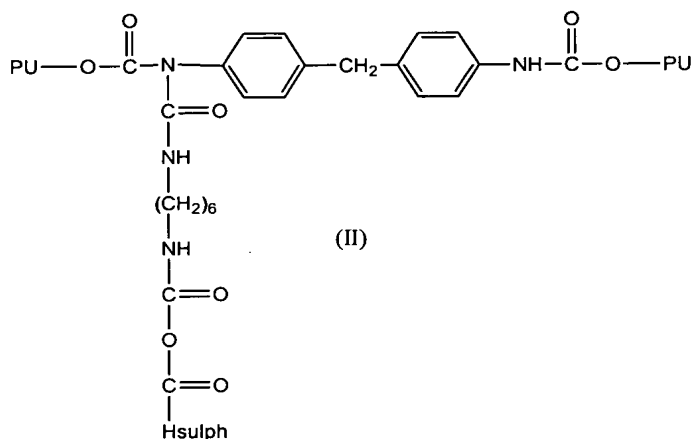
i) the polyurethane (IV) is reacted with bromoacetic acid (VII) in the presence of N,N'-dicyclohexylcarbodiimide (DCC), to obtain the adduct of formula (III)



ii) the adduct (III) coming from step i) is reacted with  $\text{HOOC—Hsulph}$ , wherein Hsulph is defined as above, thereby obtaining the compound of formula (I)

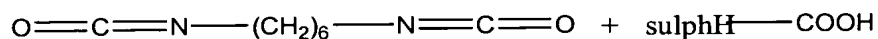


8. (currently amended): A process for preparing the polyurethane of formula (II)

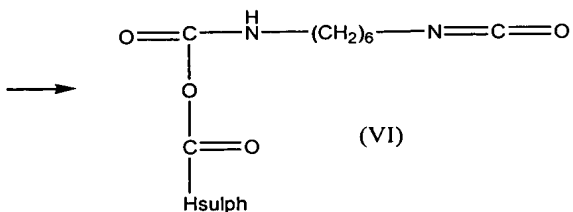


wherein PU and Hsulph are as defined in claim 6, comprising the following steps:

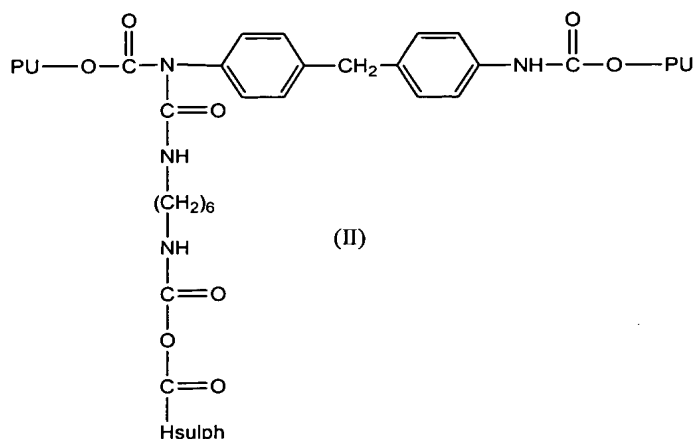
i')  $\text{HOOC—Hsulph}$  is reacted in solution with hexamethylenediisocyanate (HMDI) (V) to obtain the adduct of formula (VI)



(V)



ii') the adduct (VI) coming from step i') is reacted in solution with the polyurethane (IV) to obtain the said polyurethane of formula (II)



9. (previously presented): Haemocompatible material comprising at least one compound according to claim 1.
10. (previously presented): Haemocompatible material consisting of at least one compound according to claim 1.
11. (original): The haemocompatible material according to claim 9, further comprising a pharmaceutically active substance.
12. (previously presented): The haemocompatible material according to claim 11, wherein said pharmaceutically active substance is selected from the group consisting of antibiotics, anti-infective, antimicrobial, antiviral, cytostatic, antitumoral, anti inflammatory, wound healing agents, anesthetics, cholinergic or adrenergic agonists or antagonists, antithrombotic, anticoagulant, haemostatic, fibrinolytic, thrombolytic agents, proteins or their fragments, peptides, polynucleotide, growth factors, enzymes and vaccines.
13. (previously presented): The haemocompatible material according to claim 9, further comprising at least one natural, synthetic or semisynthetic polymer.
14. (previously presented): The haemocompatible material according to claim 13, wherein said natural polymer is selected from the group consisting of collagen, collagen coprecipitates and glycosamino glycans, cellulose, polysaccharides in the form of gels, chitin, chitosan, pectin or pectic acid, agar, agarose, xanthane, gellan, alginic acid or the alginates, polymannan or polyglycans, starch and natural gums.
15. (previously presented): The haemocompatible material according to claim 13, wherein said semisynthetic polymer is selected from the group consisting of collagen crosslinked with aldehydes, dicarboxylic acids or their halides, diamines, derivatives of cellulose, hyaluronic acid, chitin or chitosan, gellan, xanthane, pectin or pectic acid, polyglycans, polymannan, agar, agarose, natural gum and glycosamino glycans.
16. (previously presented): The haemocompatible material according to claim 13, wherein said

synthetic polymer is selected from the group consisting of polylactic acid, polyglycolic acid, polydioxanes, polyphosphazenes, polysulphonic resins and PTFE.

17. (previously presented): The haemocompatible material according to claim 9, in the form of sponges, films, membranes, threads, tampons, non-woven fabrics, microspheres, nanospheres, gauzes, gels or guide channels.

18. (previously presented): Industrial or medical articles or devices made with or coated with the haemocompatible material according to claim 9.

19. (previously presented): The industrial or medical articles or devices coated with the haemocompatible material according to any of claims 9-16, wherein said articles or devices are selected from the group consisting of catheters, guide channels, probes, cardiac valves, soft tissue prostheses, prostheses of animal origin, cardiac valves from pigs, artificial tendons, bone replacements or cardiovascular prostheses, contact lenses, blood oxygenators, artificial kidneys, hearts, pancreas and livers, blood bags, syringes, surgical instruments, filtration systems, laboratory instruments, containers for cultures and for cell and tissue regeneration, supports for peptides, proteins and antibodies.

20. (previously presented): A compound which consists of a polyurethane bound covalently to sulphated hyaluronic acid derivative obtained by a process comprising supplementing a polyurethane solution with a salt of the said sulphated hyaluronic acid derivative, or with a solution thereof, wherein the said sulphated hyaluronic acid derivative is an O-sulphated hyaluronic acid derivative.

21. (previously presented): The compound according to claim 20, wherein the said polyurethane is formed starting from 4,4'-methylenebis (phenyl isocyanate).

22. (canceled)

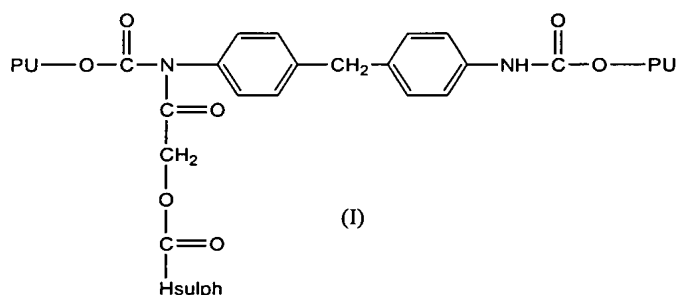
23. (canceled)

24. (previously presented): The compound according to claim 20, wherein the hyaluronic acid derivative used to prepare the said sulphated hyaluronic acid derivatives are selected from the group consisting of:

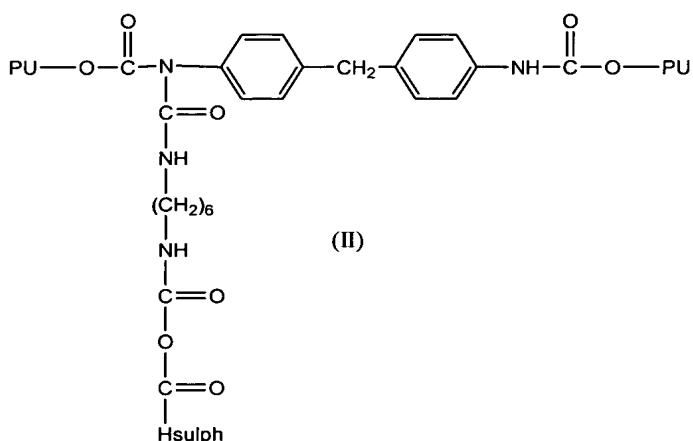
- the partial esters of hyaluronic acid containing at least one free carboxylic function and the remaining carboxylic function esterified with an aliphatic, aromatic, arylaliphatic, cycloaliphatic or heterocyclic alcohol, and
- the partial crosslinked esters containing at least one free carboxylic function and the remaining carboxylic functions are esterified with the alcoholic function of the same hyaluronic acid molecule or of a different hyaluronic acid molecule,
- the partial crosslinked esters containing at least one free carboxylic function reacted with an

aliphatic, aromatic, arylaliphatic, cycloaliphatic or heterocyclic polyalcohol, and wherein crosslinking is thereafter generated by means of spacer chains.

25. (previously presented) The compound according to any of claims 20, 21 or 24 of formula (I)



or formula (II)



wherein PU is a residue of the polyurethane chain, Hsulph is a residue of a sulphated hyaluronic acid derivative containing at least one free carboxylic function.

26. (previously presented): Haemocompatible material comprising at least one compound according to any of claims 20, 21 or 24.

27. (previously presented): Haemocompatible material consisting of at least one compound according to any of claims 20, 21 or 24.

28. (previously presented): The haemocompatible material according to claim 26, further comprising a pharmaceutically active substance.

29. (previously presented): The haemocompatible material according to claim 28, wherein said pharmaceutically active substance is selected from the group consisting of antibiotics, anti-infective, antimicrobial, antiviral, cytostatic, antitumoral, anti-inflammatory, wound healing agents, anesthetics, cholinergic or adrenergic agonists or antagonists, antithrombotic, anticoagulant, haemostatic, fibrinolytic, thrombolytic agents, proteins or their fragments, peptides, polynucleotide, growth factors, enzymes and vaccines.

30. (previously presented): The haemocompatible material according to claim 26, further

comprising at least one natural, synthetic or semisynthetic polymer.

31. (previously presented) : The haemocompatible material according to claim 30, wherein said natural polymer is selected from the group consisting of collagen, collagen coprecipitates and glycosamino glycans, cellulose, polysaccharides in the form of gels, chitin, chitosan, pectin or pectic acid, agar, agarose, xanthane, gellan, alginic acid or the alginates, polymannan or polyglycans, starch and natural gums.

32. (previously presented): The haemocompatible material according to claim 30, wherein said semisynthetic polymer is selected from the group consisting of collagen crosslinked with aldehydes, dicarboxylic acids or their halides, diamines, derivatives of cellulose, hyaluronic acid, chitin or chitosan, gellan, xanthane, pectin or pectic acid, polyglycans, polymannan, agar, agarose, natural gum and glycosamino glycans.

33. (previously presented): The haemocompatible material according to claim 30, wherein said synthetic polymer is selected from the group consisting of polylactic acid, polyglycolic acid, polydioxanes, polyphosphazenes, polysulphonic resins and PTFE.

34. (previously presented) : The haemocompatible material according to claim 26, in the form of sponges, films, membranes, threads, tampons, non-woven fabrics, microspheres, nanospheres, gauzes, gels or guide channels.

35. (canceled)

36. (canceled)

37. (canceled)

38. (canceled)